

## **AMENDMENTS TO THE CLAIMS**

1. (CURRENTLY AMENDED) A method in an application server for executing a voice messaging application, the method comprising:

receiving, from a browser, a first HTTP request for execution of a prescribed voice messaging application operation for a subscriber;

accessing attribute information for the subscriber from an Internet Protocol (IP) based database server configured for storing subscriber attributes;

accessing an IP-based messaging server for subscriber messaging information based on the accessed attribute information, each stored message on the IP-based messaging server being stored within a corresponding e-mail message as a URL encoded string with the corresponding header information so that each stored message is encoded in the URL encoded string;

generating an HTML page, for execution of the prescribed voice messaging application operation and having media content and control tags, based on the first HTTP request and the subscriber messaging information;

wherein the prescribed voice messaging operation specifies one of: (1) requesting storage of a first message, having been generated according to a corresponding media type having a corresponding Multipurpose Internet Media Extension (MIME) type, in the IP-based messaging server, and (2) presenting in the HTML page a second message, having been stored in the IP-based messaging server, according to a corresponding media type with the corresponding MIME type, the method further comprising:

converting the corresponding message associated with the prescribed voice messaging operation between the corresponding media type and a corresponding e-mail message, having a header specifying the corresponding MIME type and having the corresponding URL encoded string as an attachment, for transfer of the corresponding message between the browser and the IP-based messaging server.

2. (ORIGINAL) The method of claim 1, wherein the receiving step includes recovering within the HTTP request a browser configuration, and call parameters.

3. (ORIGINAL) The method of claim 2, wherein the recovering step includes identifying the browser configuration as one of a computer browser configuration configured for parsing a prescribed group of media tags and presenting a prescribed group of media types, and a lightweight browser configuration configured for parsing a prescribed portion of the prescribed group of media tags.

4. (ORIGINAL) The method of claim 3, wherein the generating step includes generating the HTML page by selectively supplying media tag types based on the identified browser configuration.

5. (ORIGINAL) The method of claim 2, wherein the call parameters include a called party identifier, the accessing step including retrieving the attribute information, specifying at least one of subscriber registration status and subscriber messaging preferences, based on the called party identifier.

6. (ORIGINAL) The method of claim 5, wherein the call parameters include a calling party identifier, the accessing step further including retrieving second subscriber attribute information based on the calling party identifier.

7. (ORIGINAL) The method of claim 5, wherein the accessing step includes accessing the IP-based database server according to LDAP protocol.

8. (ORIGINAL) The method of claim 1, wherein the accessing step includes accessing the IP-based database server according to LDAP protocol.

9. (ORIGINAL) The method of claim 1, wherein the step of accessing the IP-based messaging server includes selectively obtaining from the IP-based messaging server at least one of a subscriber name, and a subscriber greeting as a subscriber prompt based on a subscriber identifier obtained from the accessed attribute information.

10. (PREVIOUSLY PRESENTED) The method of claim 9, wherein the converting step includes converting the subscriber prompt from the corresponding URL encoded string into a media file having at least one prescribed media type.

11. (ORIGINAL) The method of claim 10, wherein the converting step includes converting the subscriber prompt into a Multipurpose Internet Media Extension (MIME) type .wav file playable by a browser.

12. (ORIGINAL) The method of claim 11, wherein the step of generating an HTML page includes inserting a first media tag including the .wav file and a second media tag configured for controlling playing of the .wav file.

13. (ORIGINAL) The method of claim 1, wherein the step of accessing the IP-based messaging server includes determining a presence of a stored message on the IP-based messaging server for the subscriber based on the subscriber messaging information, the generating step including selectively inserting one of a first prompt file specifying no new messages and a second prompt file specifying the determined presence of the stored message, based on the subscriber messaging information.

14. (PREVIOUSLY PRESENTED) The method of claim 13, wherein the step of accessing the IP-based messaging server further includes identifying, for each stored message, a corresponding message type based on the corresponding header information specifying the Multipurpose Internet Media Extension (MIME) type, the second prompt file configured for specifying the corresponding message type for each stored message.

15. (PREVIOUSLY PRESENTED) The method of claim 14, the method further comprising:  
selecting one of the stored messages from the IP-based messaging server;  
the converting step including converting the URL encoded string of the selected one message  
into a media file having a prescribed media type, based on the corresponding MIME type and  
determined capabilities of the browser having sent the first HTTP request, the generating step including  
inserting the media file into a media tag with a corresponding media control tag for playback of the  
media file by the browser.

16. (ORIGINAL) The method of claim 15, wherein the converting step includes converting the  
URL encoded string to text and executing a text to speech routine for converting the text into an audio  
file based on the header information specifying text and the determined attributes specifying audio only.

17. (ORIGINAL) The method of claim 15, wherein the converting step includes converting the  
URL encoded string into an audio file based on the header information specifying a .wav MIME type.

18. (PREVIOUSLY PRESENTED) The method of claim 14, wherein the converting step  
includes converting selected header information into an audio file based on determining the MIME type  
is incompatible with determined capabilities of the browser, the generating step including inserting the  
audio file into the HTML page for playback by the browser.

19. (ORIGINAL) The method of claim 18, wherein the converting step includes converting the selected header information based on determining the MIME type specifies an image document and the determined capabilities to not include display of images.

20. (ORIGINAL) The method of claim 1, further comprising:  
receiving a second HTTP request for storage for the subscriber of a message having a prescribed messaging format; and  
outputting to the IP-based messaging server an instruction for storage of a standard-format message, containing the message and header information specifying the prescribed messaging format, in a directory specified for the subscriber.

21. (ORIGINAL) The method of claim 20, wherein the outputting step includes:  
converting the message into a URL encoded string;  
generating a header that specifies a Multipurpose Internet Media Extension (MIME) type for the prescribed messaging format; and  
sending as the standard-format message an e-mail message, including the URL encoded string and the header as an attachment, to the IP-based messaging server according to SMTP protocol for delivery to the directory specified for the subscriber.

22. (CURRENTLY AMENDED) An application server configured for executing a voice messaging application, the application server including:

a hypertext transport protocol (HTTP) interface for receiving from a browser an HTTP request specifying execution of a prescribed voice messaging application operation for a subscriber; and

an application runtime environment configured for dynamically generating, in response to the HTTP request, a first hypertext markup language (HTML) document having media content for execution of the voice messaging application operation for the subscriber based on accessing attribute information for the subscriber from an Internet Protocol (IP) based database server configured for storing subscriber attributes, and based on accessing an IP-based messaging server for subscriber messaging information based on the accessed attribute information; wherein:

each stored message on the IP-based messaging server is stored within a corresponding e-mail message as a URL encoded string with the corresponding header information so that each stored message is encoded in the URL encoded string;

the prescribed voice messaging operation specifies one of (1) requesting storage of a first message, having been generated according to a corresponding media type having a corresponding Multipurpose Internet Media Extension (MIME) type, in the IP-based messaging server, and (2) presenting in the HTML page a second message, having been stored in the IP-based messaging server, according to a corresponding media type with the corresponding MIME type;

the application runtime environment configured for converting the corresponding message associated with the prescribed voice messaging operation between the corresponding media type and a

corresponding e-mail message, having a header specifying the corresponding MIME type and having the corresponding URL encoded string as an attachment, for transfer of the corresponding message between the browser and the IP-based messaging server.

23. (ORIGINAL) The server of claim 22, wherein the application runtime environment is configured for determining subscriber registration status and subscriber messaging preferences in response to a called party identifier specified in the HTTP request.

24. (ORIGINAL) The server of claim 23, wherein the application runtime environment accesses the IP-based database server and the IP-based messaging server according to LDAP protocol and IMAP protocol, respectively.

25. (PREVIOUSLY PRESENTED) The server of claim 24, wherein the application runtime environment is configured for accessing from the IP-based messaging server at least one of a subscriber name and a subscriber greeting as a subscriber prompt based on the HTTP request specifying a condition for a calling party to leave a message for the subscriber, the application runtime environment converting the subscriber prompt into a media file playable by the browser and inserting the media file into the HTML document.



26. (ORIGINAL) The server of claim 25, wherein the application runtime environment is configured for converting the subscriber prompt stored on the IP-based messaging server from a URL encoded string into an audio file as said media file.

27. (ORIGINAL) The server of claim 24, wherein the application runtime environment is configured for accessing from the IP-based messaging server a message for a subscriber, stored on the IP-based messaging server as an e-mail message having a URL encoded string and corresponding header information that specifies a Multipurpose Internet Media Extension (MIME) type, the application runtime environment converting at least one of the header information and the URL encoded string into a media file having a selected media type based on the MIME type and determined capabilities of an input device used by the subscriber.

28. (ORIGINAL) The server of claim 27, wherein the application runtime environment is configured for converting the header information into an audio file based on determining that the MIME type specifies an image and that the determined capabilities to not support the image.

29. (ORIGINAL) The server of claim 27, wherein the application runtime environment is configured for converting the URL encoded string into an audio file based on the MIME type specifying a .wav type.

30. (ORIGINAL) The server of claim 27, wherein the application runtime environment is configured for converting the URL encoded string into text and converting the text into an audio file using a text to speech routine, based on the MIME type specifying text and the determined capabilities to not support text.

31. (ORIGINAL) The server of claim 24, wherein the application runtime environment is configured for converting a message supplied by the HTTP request and having a prescribed messaging format into a URL encoded string, generating a header specifying a Multipurpose Internet Media Extension (MIME) type for the prescribed messaging format, and outputting to the IP-based messaging server an e-mail message, including the URL encoded string and the header as an attachment, for delivery to a directory specified for the subscriber.

32. (CURRENTLY AMENDED) A computer readable medium having stored thereon sequences of instructions for executing a voice messaging application, the sequences of instructions including instructions for performing the steps of:

receiving, from a browser, a first HTTP request for execution of a prescribed voice messaging application operation for a subscriber;

accessing attribute information for the subscriber from an Internet Protocol (IP) based database server configured for storing subscriber attributes;

accessing an IP-based messaging server for subscriber messaging information based on the accessed attribute information, each stored message on the IP-based messaging server being stored within a corresponding e-mail message as a URL encoded string with the corresponding header information so that each stored message is encoded in the URL encoded string;

generating an HTML page, for execution of the prescribed voice messaging application operation and having media content and control tags, based on the first HTTP request and the subscriber messaging information;

wherein the prescribed voice messaging operation specifies one of: (1) requesting storage of a first message, having been generated according to a corresponding media type having a corresponding Multipurpose Internet Media Extension (MIME) type, in the IP-based messaging server, and (2) presenting in the HTML page a second message, having been stored in the IP-based messaging server, according to a corresponding media type with the corresponding MIME type, the medium further including instructions for performing the step of:

converting the corresponding message associated with the prescribed voice messaging operation between the corresponding media type and a corresponding e-mail message, having a header specifying the corresponding MIME type and having the corresponding URL encoded string as an attachment, for transfer of the corresponding message between the browser and the IP-based messaging server.

33. (ORIGINAL) The medium of claim 32, wherein the receiving step includes recovering within the HTTP request a browser configuration, and call parameters.

34. (ORIGINAL) The medium of claim 33, wherein the recovering step includes identifying the browser configuration as one of a computer browser configuration configured for parsing a prescribed group of media tags and presenting a prescribed group of media types, and a lightweight browser configuration configured for parsing a prescribed portion of the prescribed group of media tags.

35. (ORIGINAL) The medium of claim 34, wherein the generating step includes generating the HTML page by selectively supplying media tag types based on the identified browser configuration.

36. (ORIGINAL) The medium of claim 33, wherein the call parameters include a called party identifier, the accessing step including retrieving the attribute information, specifying at least one of subscriber registration status and subscriber messaging preferences, based on the called party identifier.

37. (ORIGINAL) The medium of claim 36, wherein the call parameters include a calling party identifier, the accessing step further including retrieving second subscriber attribute information based on the calling party identifier.

38. (ORIGINAL) The medium of claim 36, wherein the accessing step includes accessing the IP-based database server according to LDAP protocol.

39. (ORIGINAL) The medium of claim 32, wherein the accessing step includes accessing the IP-based database server according to LDAP protocol.

40. (ORIGINAL) The medium of claim 32, wherein the step of accessing the IP-based messaging server includes selectively obtaining from the IP-based messaging server at least one of a subscriber name, and a subscriber greeting as a subscriber prompt based on a subscriber identifier obtained from the accessed attribute information.

41. (PREVIOUSLY PRESENTED) The medium of claim 40, wherein the converting step includes converting the subscriber prompt into a media file having at least one prescribed media type.

42. (ORIGINAL) The medium of claim 41, wherein the converting step includes converting the subscriber prompt into a Multipurpose Internet Media Extension (MIME) type .wav file playable by a browser.

43. (ORIGINAL) The medium of claim 42, wherein the step of generating an HTML page includes inserting a first media tag including the .wav file and a second media tag configured for controlling playing of the .wav file.

44. (ORIGINAL) The medium of claim 32, wherein the step of accessing the IP-based messaging server includes determining a presence of a stored message on the IP-based messaging server for the subscriber based on the subscriber messaging information, the generating step including selectively inserting one of a first prompt file specifying no new messages and a second prompt file specifying the determined presence of the stored message, based on the subscriber messaging information.

45. (PREVIOUSLY PRESENTED) The medium of claim 44, wherein the step of accessing the IP-based messaging server further includes identifying, for each stored message, a corresponding message type based on the corresponding header information specifying the Multipurpose Internet Media Extension (MIME) type, the second prompt file configured for specifying the corresponding message type for each stored message.

46. (PREVIOUSLY PRESENTED) The medium of claim 45, wherein the medium further comprises instructions for performing the steps of:

selecting one of the stored messages from the IP-based messaging server;

the converting step including converting the URL encoded string of the selected one message into a media file having a prescribed media type, based on the corresponding MIME type and determined capabilities of the browser having sent the first HTTP request, the generating step including inserting the media file into a media tag with a corresponding media control tag for playback of the media file by the browser.

47. (ORIGINAL) The medium of claim 46, wherein the converting step includes converting the URL encoded string to text and executing a text to speech routine for converting the text into an audio file based on the header information specifying text and the determined attributes specifying audio only.

48. (ORIGINAL) The medium of claim 46, wherein the converting step includes converting the URL encoded string into an audio file based on the header information specifying a .wav MIME type.

49. (PREVIOUSLY PRESENTED) The medium of claim 45, wherein the converting step includes converting selected header information into an audio file based on determining the MIME type is incompatible with determined capabilities of the browser, the generating step including inserting the audio file into the HTML page for playback by the browser.

50. (ORIGINAL) The medium of claim 49, wherein the converting step includes converting the selected header information based on determining the MIME type specifies an image document and the determined capabilities to not include display of images.

51. (ORIGINAL) The medium of claim 32, further comprising instructions for performing the steps of:

receiving a second HTTP request for storage for the subscriber of a message having a prescribed messaging format; and

outputting to the IP-based messaging server an instruction for storage of a standard-format message, containing the message and header information specifying the prescribed messaging format, in a directory specified for the subscriber.

52. (ORIGINAL) The medium of claim 51, wherein the outputting step includes:

converting the message into a URL encoded string;

generating a header that specifies a Multipurpose Internet Media Extension (MIME) type for the prescribed messaging format; and

sending as the standard-format message an e-mail message, including the URL encoded string and the header as an attachment, to the IP-based messaging server according to SMTP protocol for delivery to the directory specified for the subscriber.



53. (CURRENTLY AMENDED) An application server configured for executing a voice messaging application, the application server including:

a hypertext transport protocol (HTTP) interface for receiving from a browser an HTTP request specifying execution of a prescribed voice messaging application operation for a subscriber; and

means for dynamically generating, in response to the HTTP request, a first hypertext markup language (HTML) document having media content for execution of the voice messaging application operation for the subscriber based on accessing attribute information for the subscriber from an Internet Protocol (IP) based database server configured for storing subscriber attributes, and based on accessing an IP-based messaging server for subscriber messaging information based on the accessed attribute information; wherein:

each stored message on the IP-based messaging server is stored within a corresponding e-mail message as a URL encoded string with the corresponding header information so that each stored message is encoded in the URL encoded string;

the prescribed voice messaging operation specifies one of (1) requesting storage of a first message, having been generated according to a corresponding media type having a corresponding Multipurpose Internet Media Extension (MIME) type, in the IP-based messaging server, and (2) presenting in the HTML page a second message, having been stored in the IP-based messaging server, according to a corresponding media type with the corresponding MIME type;

the generating means is configured for converting the corresponding message associated with the prescribed voice messaging operation between the corresponding media type and a corresponding

e-mail message, having a header specifying the corresponding MIME type and having the corresponding URL encoded string as an attachment, for transfer of the corresponding message between the browser and the IP-based messaging server.

54. (ORIGINAL) The server of claim 53, wherein the generating means is configured for determining subscriber registration status and subscriber messaging preferences in response to a called party identifier specified in the HTTP request.

55. (ORIGINAL) The server of claim 54, wherein the generating means includes means for accessing the IP-based database server and the IP-based messaging server according to LDAP protocol and IMAP protocol, respectively.

56. (PREVIOUSLY PRESENTED) The server of claim 55, wherein the generating means is configured for accessing from the IP-based messaging server at least one of a subscriber name and a subscriber greeting as a subscriber prompt based on the HTTP request specifying a condition for a calling party to leave a message for the subscriber, the generating means converting the subscriber prompt into a media file playable by the browser and inserting the media file into the HTML document.

57. (ORIGINAL) The server of claim 56, wherein the generating means is configured for converting the subscriber prompt stored on the IP-based messaging server from a URL encoded string into an audio file as said media file.

58. (ORIGINAL) The server of claim 55, wherein the generating means is configured for accessing from the IP-based messaging server a message for a subscriber, stored on the IP-based messaging server as an e-mail message having a URL encoded string and corresponding header information that specifies a Multipurpose Internet Media Extension (MIME) type, the generating means converting at least one of the header information and the URL encoded string into a media file having a selected media type based on the MIME type and determined capabilities of an input device used by the subscriber.

59. (ORIGINAL) The server of claim 58, wherein the generating means is configured for converting the header information into an audio file based on determining that the MIME type specifies an image and that the determined capabilities to not support the image.

60. (ORIGINAL) The server of claim 58, wherein the generating means is configured for converting the URL encoded string into an audio file based on the MIME type specifying a .wav type.

61. (ORIGINAL) The server of claim 58, wherein the generating means is configured for converting the URL encoded string into text and converting the text into an audio file using a text to speech routine, based on the MIME type specifying text and the determined capabilities to not support text.

62. (ORIGINAL) The server of claim 55, wherein the generating means is configured for converting a message supplied by the HTTP request and having a prescribed messaging format into a URL encoded string, generating a header specifying a Multipurpose Internet Media Extension (MIME) type for the prescribed messaging format, and outputting to the IP-based messaging server an e-mail message, including the URL encoded string and the header as an attachment, for delivery to a directory specified for the subscriber.

63. (PREVIOUSLY PRESENTED) The server of claim 22, wherein:  
the HTTP interface is configured for receiving a second HTTP request for storage for the subscriber of a message having a prescribed messaging format;  
the application runtime environment configured for outputting to the IP-based messaging server an instruction for storage of a standard-format message, containing the message and header information specifying the prescribed messaging format, in a directory specified for the subscriber, based on:

(1) converting the message into the corresponding URL encoded string;

(2) generating the corresponding header that specifies the corresponding Multipurpose Internet Media Extension (MIME) type for the prescribed messaging format, and

(3) sending as the standard-format message an e-mail message, including the URL encoded string and the header as an attachment, to the IP-based messaging server according to SMTP protocol for delivery to the directory specified for the subscriber.

64. (PREVIOUSLY PRESENTED) The server of claim 53, wherein:

the HTTP interface is configured for receiving a second HTTP request for storage for the subscriber of a message having a prescribed messaging format;

the generating means configured for outputting to the IP-based messaging server an instruction for storage of a standard-format message, containing the message and header information specifying the prescribed messaging format, in a directory specified for the subscriber, based on:

(1) converting the message into the corresponding URL encoded string;

(2) generating the corresponding header that specifies the corresponding Multipurpose Internet Media Extension (MIME) type for the prescribed messaging format, and

(3) sending as the standard-format message an e-mail message, including the URL encoded string and the header as an attachment, to the IP-based messaging server according to SMTP protocol for delivery to the directory specified for the subscriber.

65. (NEW) A method in an application server for executing a voice messaging application, the method comprising:

- receiving, from a browser, a first HTTP request for execution of a prescribed voice messaging application operation for a subscriber;
- accessing attribute information for the subscriber from an Internet Protocol (IP) based database server configured for storing subscriber attributes;
- accessing an IP-based messaging server for subscriber messaging information based on the accessed attribute information, each stored message on the IP-based messaging server being stored within a corresponding e-mail message as a URL encoded string with the corresponding header information so that the each stored message is encoded in the URL encoded string; and
- generating an HTML page, for execution of the prescribed voice messaging application operation and having media content and control tags, based on the first HTTP request and the subscriber messaging information.